iPod Touch 4th Generation 30 Pin Dock Connector Replacement

Learn how to replace the 30 pin dock connector on an iPod touch 4th generation.

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INTRODUCTION

Use this guide to replace the dock connector on your iPod Touch 4th generation.

WARNING: This process involves soldering.

TOOLS:

- Soldering Station (1)
- Solder (1)
- Desoldering Braid (1)
- iFixit Opening Tools (1)
- Heat Gun (1)
- Phillips #00 Screwdriver (1)
- Metal Spudger (1)

PARTS:

- iPod Touch 4th Gen Replacement Dock Connector (1)

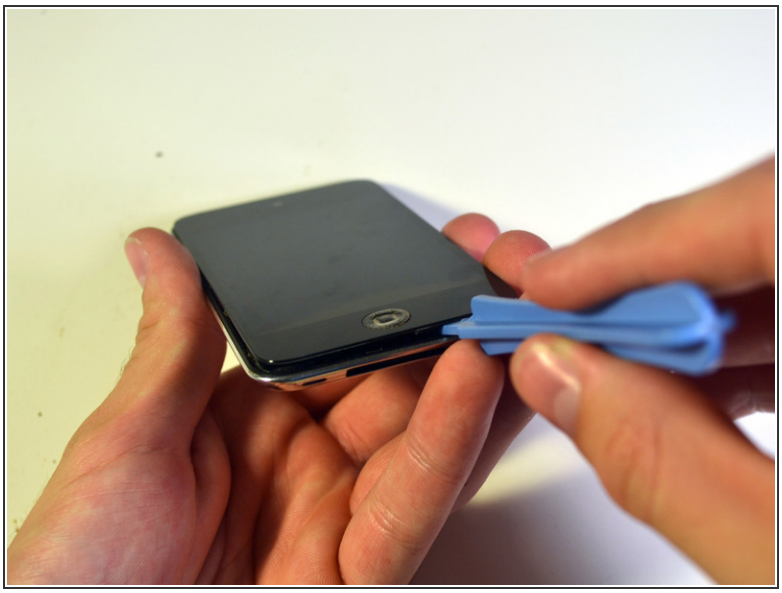
Step 1 — 30 Pin Dock Connector

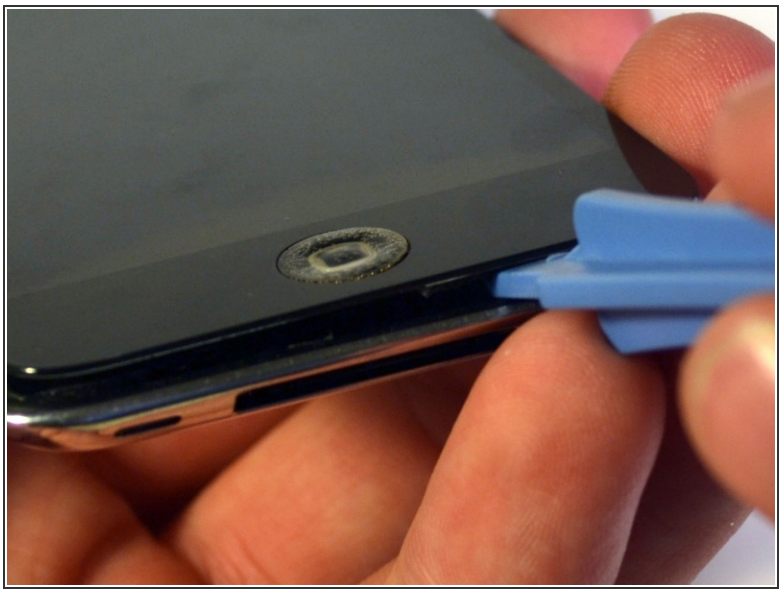
The iPod Touch 4th Generation front panel is attached to the rear case by an adhesive. The use of a heat gun to soften the adhesive is highly recommended.

- With the heat gun set on "low", begin heating the lower portion of the Touch near the home button.

It is suggested to heat the desired portion in a circular motion pattern to evenly dissipate the amount of heat throughout the device.

Step 2





⚠ Beware, as the Touch will be very hot. It may be helpful to hold it with a towel while prying.

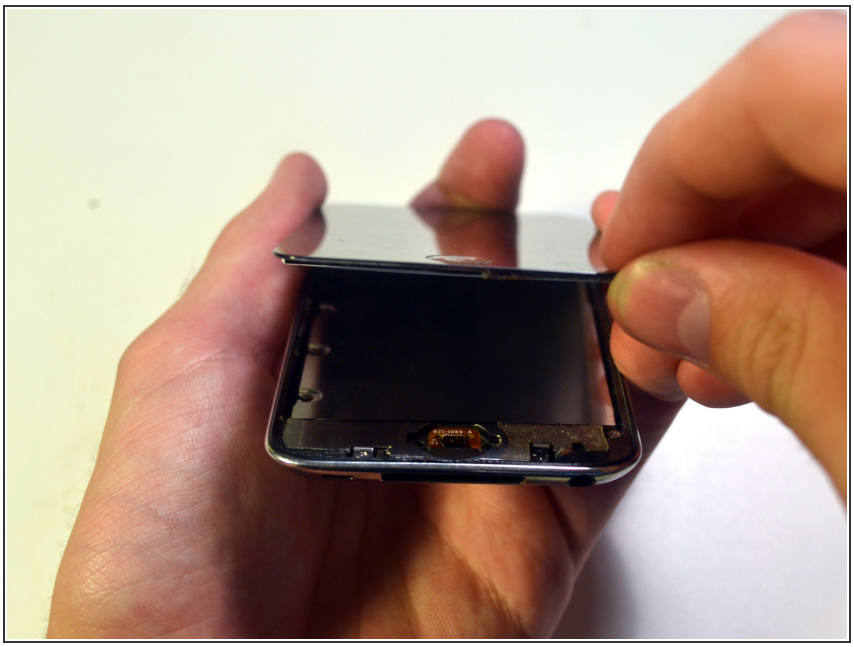
- Insert the edge of a plastic opening tool between the front glass panel and the plastic bezel near the home button.

⚠ Do not try to pry between the plastic bezel and the steel rear case.

- Pry the bottom edge of the front panel upward, being careful not to bend the glass excessively.

ⓘ If it is too difficult to pry up the front panel assembly, reheat it and try again.

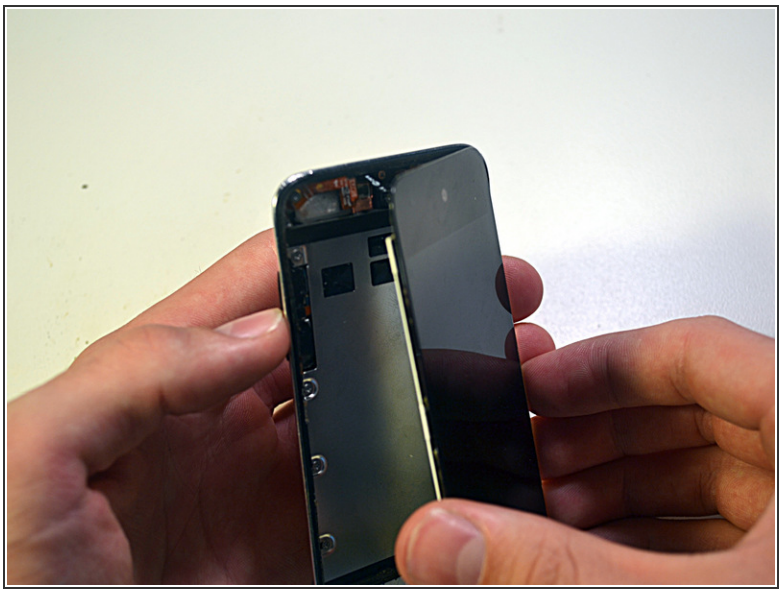
Step 3



- Lift the front panel away from the body of the Touch to peel up the adhesive along its left and right edges.

⚠ If the adhesive is too difficult to separate, use a heat gun to soften it before proceeding.

Step 4



⚠ Use extreme caution when handling the front panel assembly, as it is attached to the rest of the Touch by the very delicate digitizer cable.

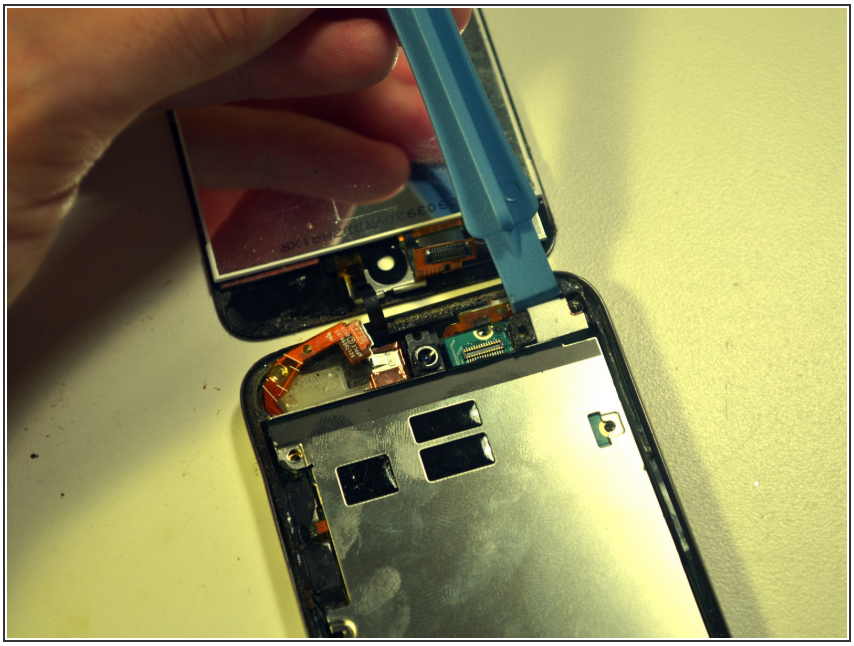
⚠ The display data cable is very short and is connected to the logic board near the front facing camera. If it does not disconnect from the logic board while freeing the top edge of the front panel assembly, be sure to disconnect it with a plastic opening tool before rotating the front panel assembly out of the Touch.

- Carefully pull the top of the front panel assembly away from the adhesive holding it to the Touch, minding the short digitizer cable connecting the two components.

Step 5

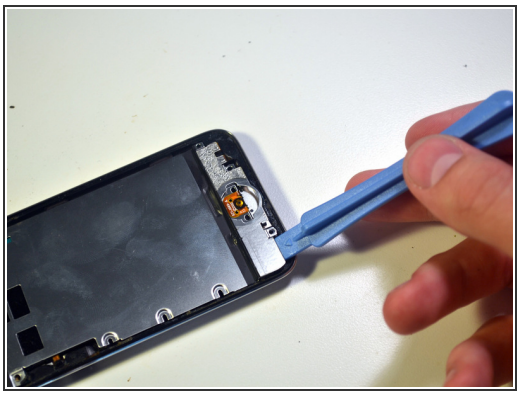
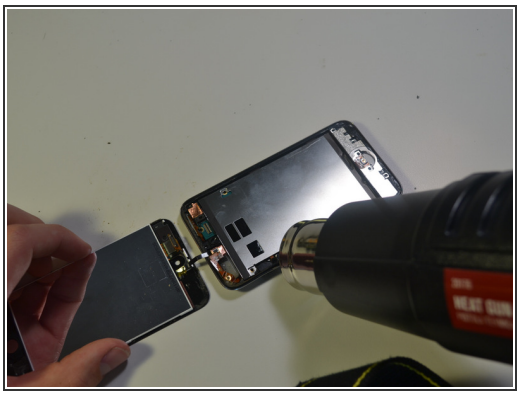
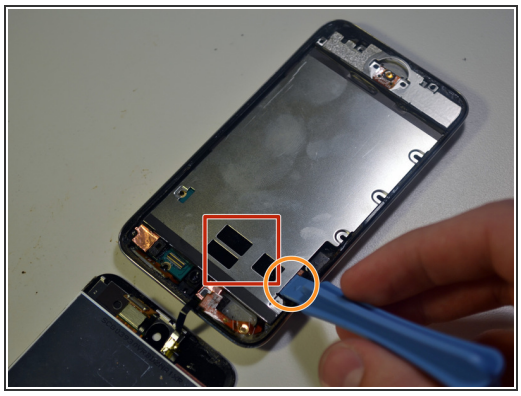
- Remove the following eight Phillips #00 screws:
  - One 3.5 mm Phillips screw
  - Two 3.0 mm Phillips screws
  - Three 2.3 mm Phillips screw
  - One 2.4 mm Phillips screw
  - Four 2.0 mm Phillips screws

Step 6



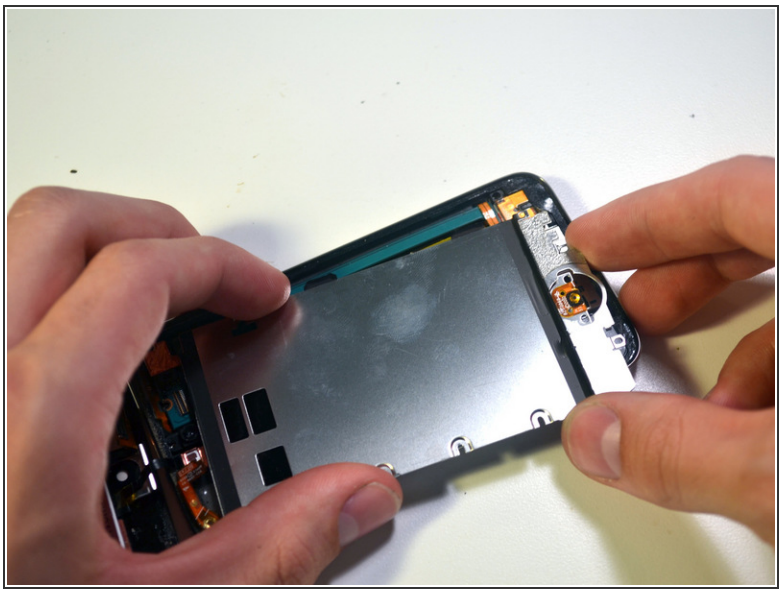
- Use the edge of a plastic opening tool to pry the thin steel cover up from the rear-facing camera.
- Remove the steel cover from the iPod.

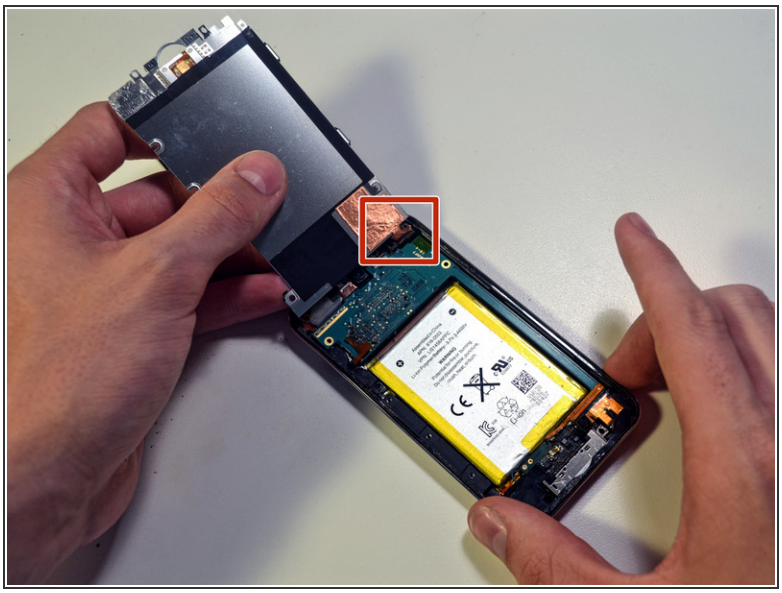
Step 7

- Insert the edge of a plastic opening tool under the EMI Shield near the bottom left corner of the Touch.
- Pry upward to separate the plate from the adhesive securing it to the plastic inner case.
- If the shield is still attached to the logic board, warm this area with a heat gun to loosen the adhesive, then separate the shield from the logic board using the opening tool.
- There is a very thin ribbon cable here that connects the volume and power buttons to the logic board. Be careful when prying in this location as the cable is very fragile and could rip.

Step 8



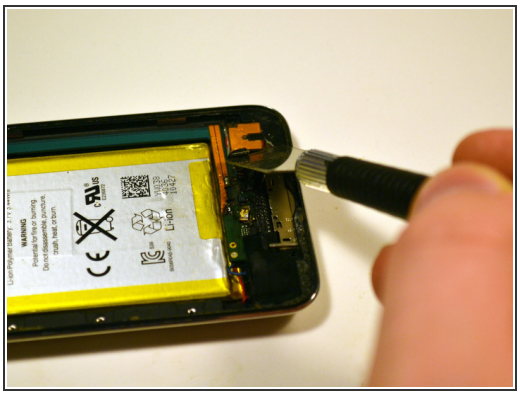


- Slightly tilt the steel EMI Shield to dislodge it from the rear case.

⚠ Be careful not to tear the piece of copper tape connecting the rear-facing camera to the steel EMI Shield.

- Lift the EMI shield up off the rear case and peel off the piece of copper tape stuck to the rear-facing camera.

Step 9



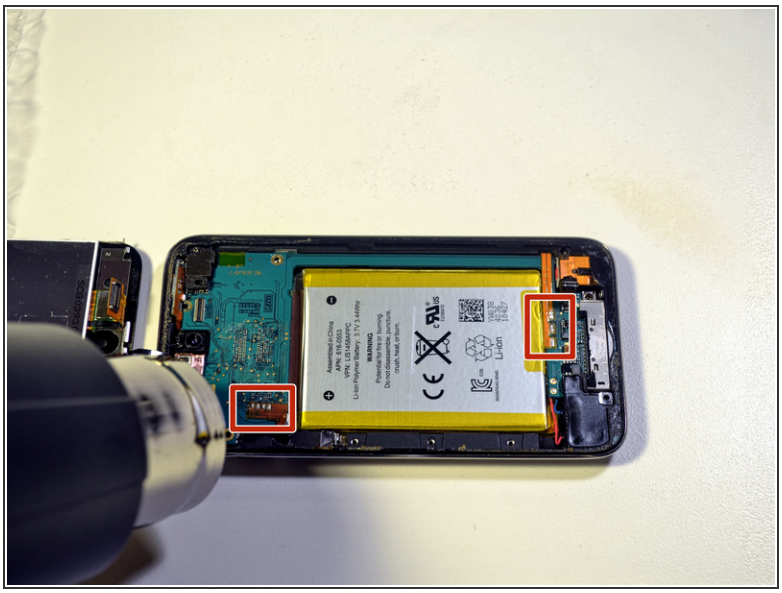
- Use a plastic opening tool to pry the headphone jack connector up and out of its socket on the logic board.

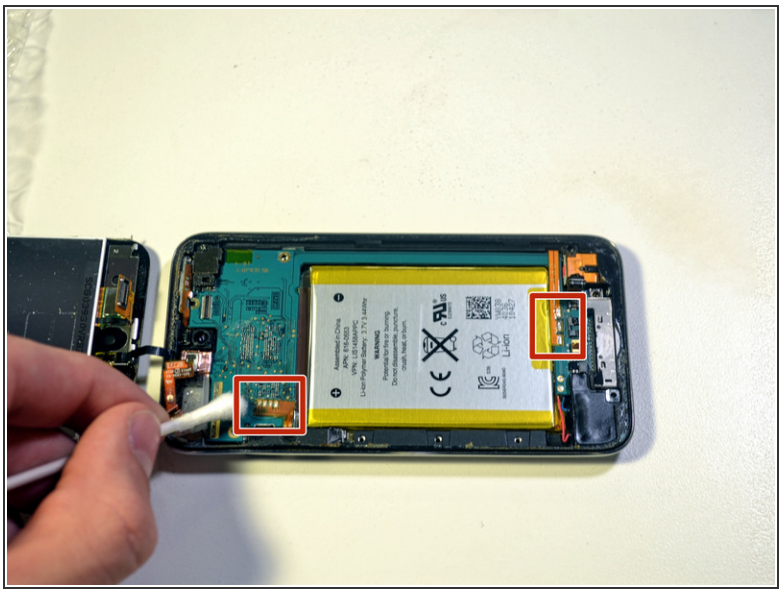
Step 10

- Areas highlighted in red show three solder joints to the right of the battery, along with four smaller solder joints located to the left of the battery.
- These joints secure the power/volume flex cable (leftmost joint) and the battery flex cable (rightmost joint) to the logic board.
- In the next few steps you will desolder the battery and power/volume flex cables from the logic board.

  ⓘ These joints may be coated in a clear silicone/glue, which must be removed before desoldering.

Step 11

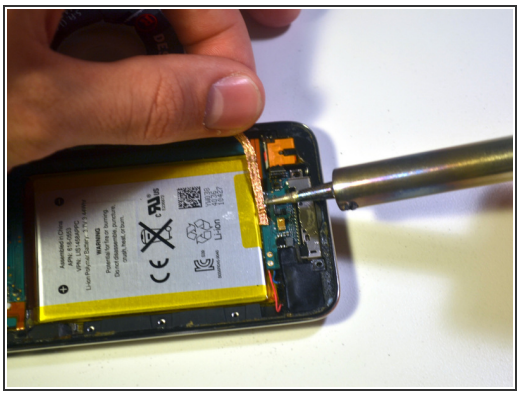
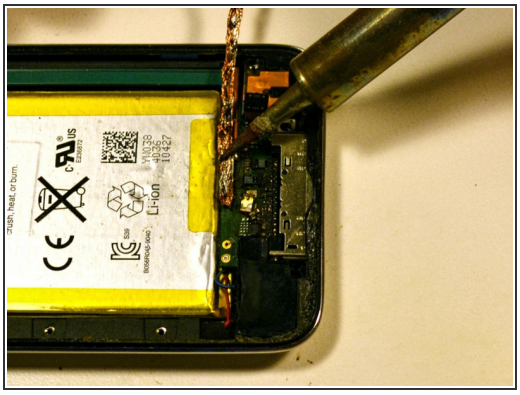
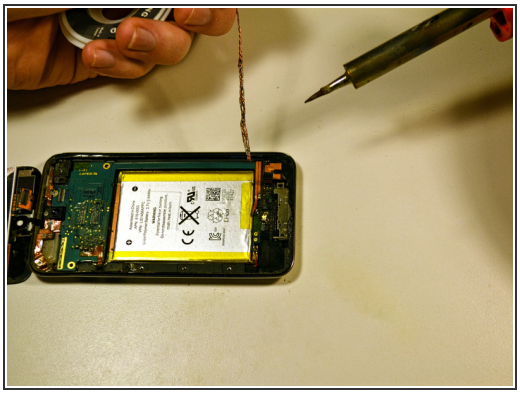




- Using the heat gun, heat the silicon/glue for 5-10 seconds, then use isopropyl alcohol and a q-tip to remove the silicon/glue.

⚠ DO NOT overheat the silicon/glue as it will turn into a liquid and ooze everywhere.

Step 12

The two ribbon cables are attached to the logic board via solder pads with small holes that go through the cables and attach to flat pads on the face of the logic board.

- To desolder the battery flex cable, place a copper desoldering braid on top of the existing solder pads and press down on the braid with the soldering iron.
- Once the solder melts and flows into the braid, remove the braid from the pad.

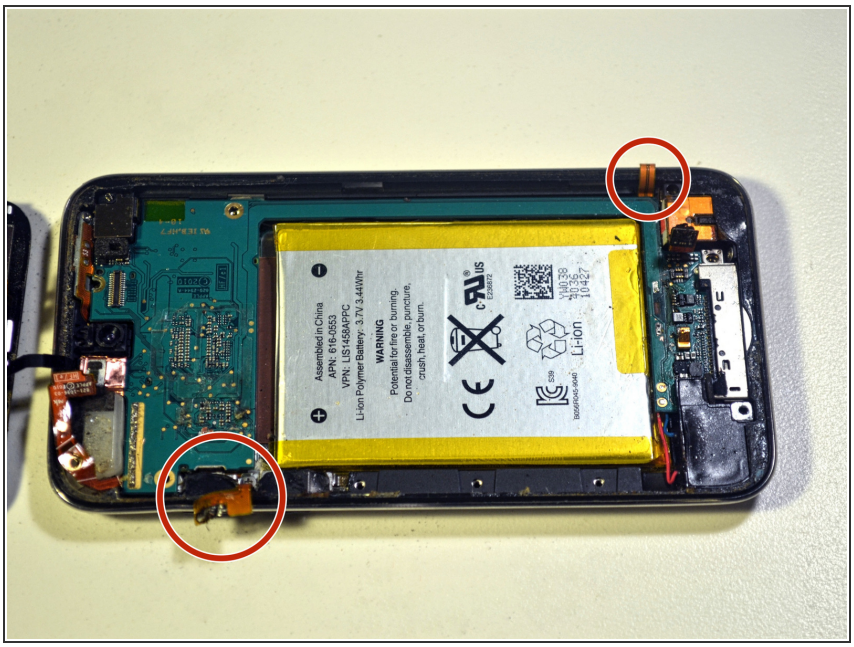
Process may need to be repeated two or three times to ensure complete removal of all solder.

Beware of overheating the board and the cable. Only hold the tip of the iron against the pad long enough to let the solder melt. Excess heat buildup has the potential to ruin the logic board or melt the ribbon cable.

DO NOT bridge the connection between the solder pads both on the board and on the ribbon cable. Shorts have the potential to ruin the logic board.

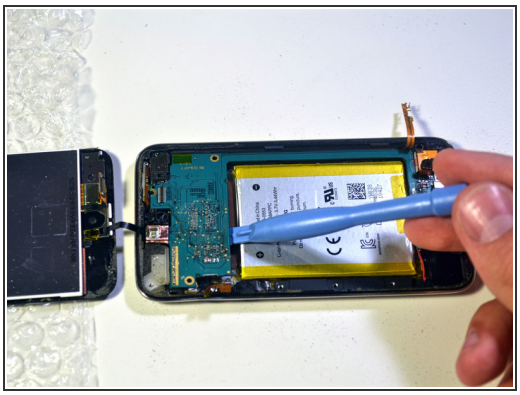
- Repeat this process for the power/volume flex cable.

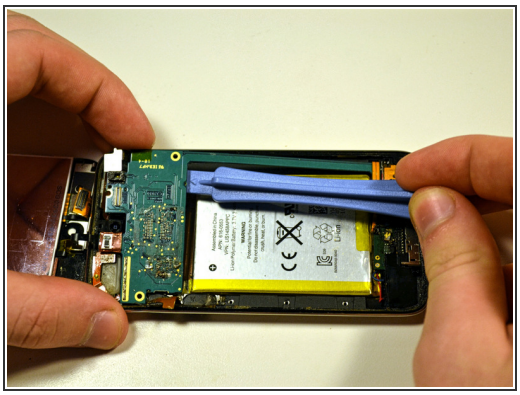
Step 13

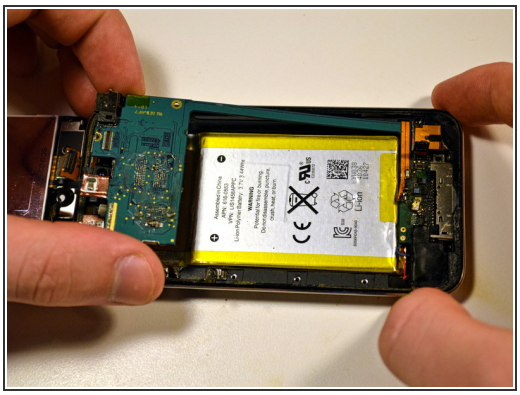


- Once all solder pads have been removed, gently pull both ribbon cables from the logic board and bend them back to keep them out of your way.

Step 14





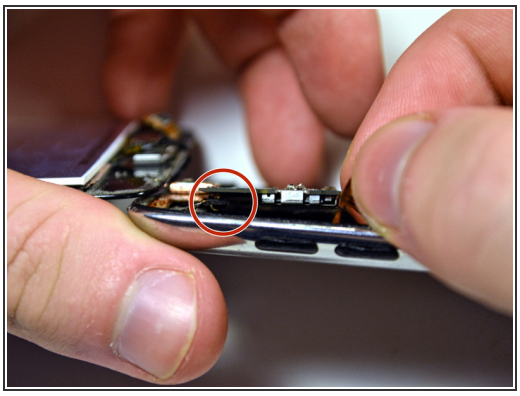
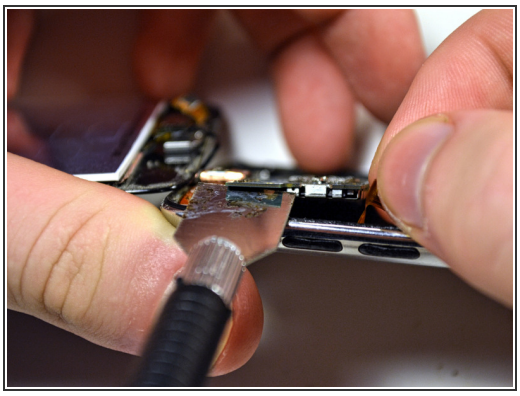
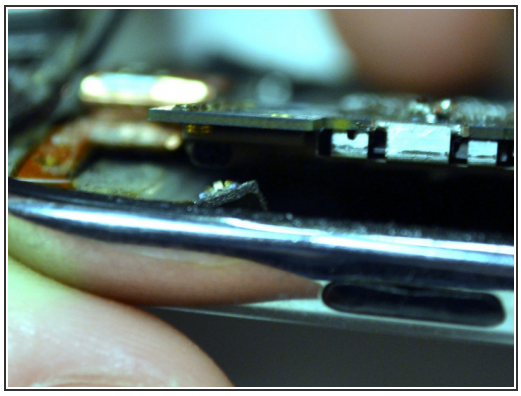


- Starting above the battery near the power/volume cable attachment, use a cell phone prying tool to slowly pry the logic board straight up.

⚠ DO NOT pry quickly, as the wifi cable will still be attached.

- At this point, the top of the logic board should be lifted from the case. The bottom of the logic board and the wifi cable should still be attached to the steel housing.

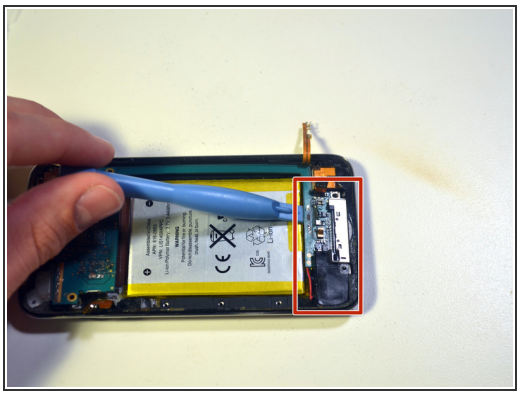
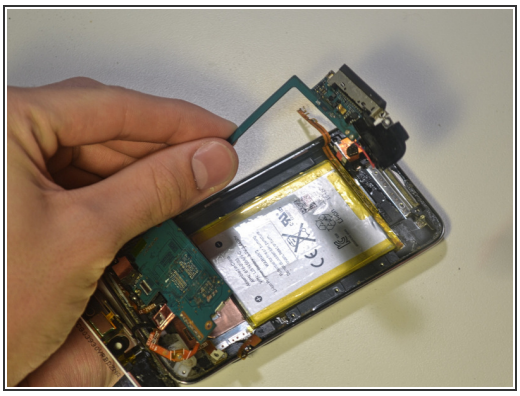
Step 15

The wifi cable is connected to the bottom of the logic board by a small connector. This must be disconnected before removing the logic board from the case.

- Insert the edge of a metal spudger under the logic board, between the wifi cable connector clip and the logic board.
- Gently pry the connector from the logic board.

Step 16


- Lightly heat the areas in red with your heat gun to soften the adhesive underneath the logic board.

  ⚠ Don’t heat this area too much, excessive heat will fry the speaker.

- Once heated, gently pry the logic board up with a cell phone opening tool.

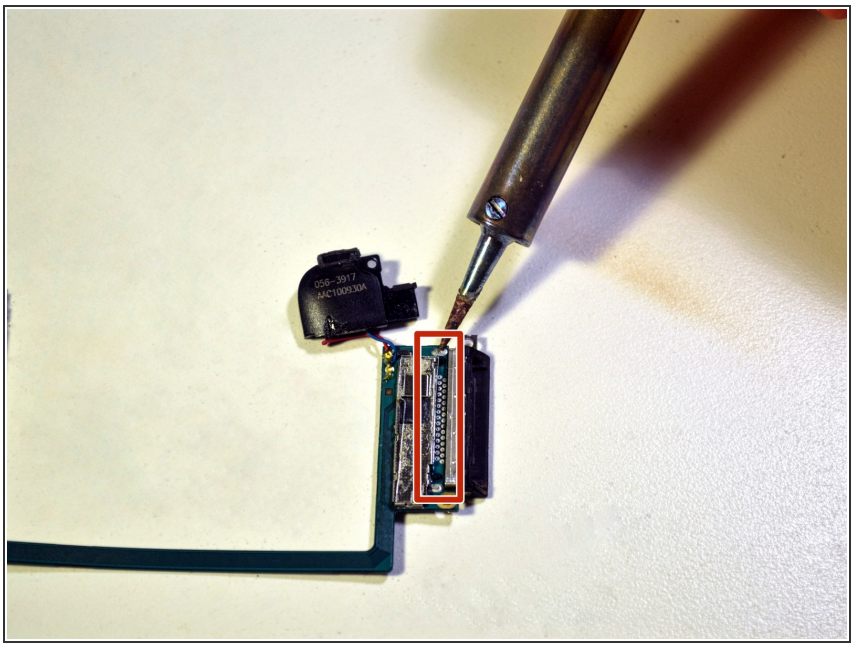
  ⓘ Make sure to angle the cell phone opening tool under the red speaker wire located at the bottom left of the device before prying upwards.

- Lift the bottom of the logic board out of the casing with your fingers.

  ⚠ The front facing camera may still be attached by adhesive. Using a metal spudger, gently pry the front facing camera from the casing.

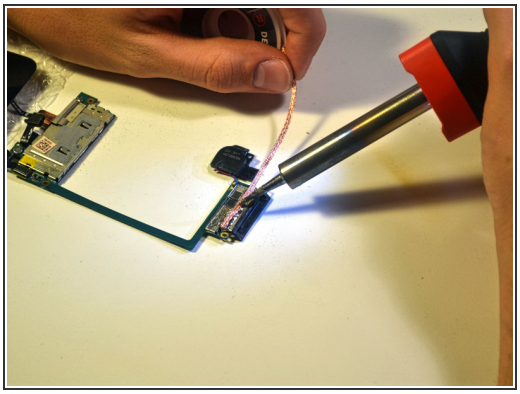
- Remove the logic board from the steel casing.

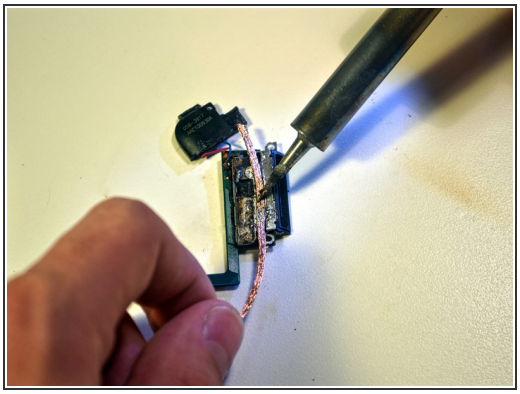
Step 17

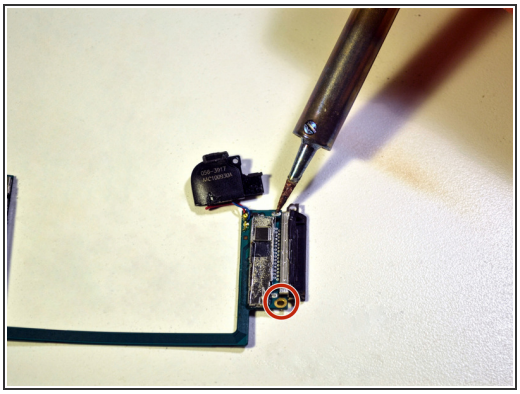


- The dock connector is secured to the logic board by 30 pins and two metal joints that stick up through holes in the logic board.

Step 18







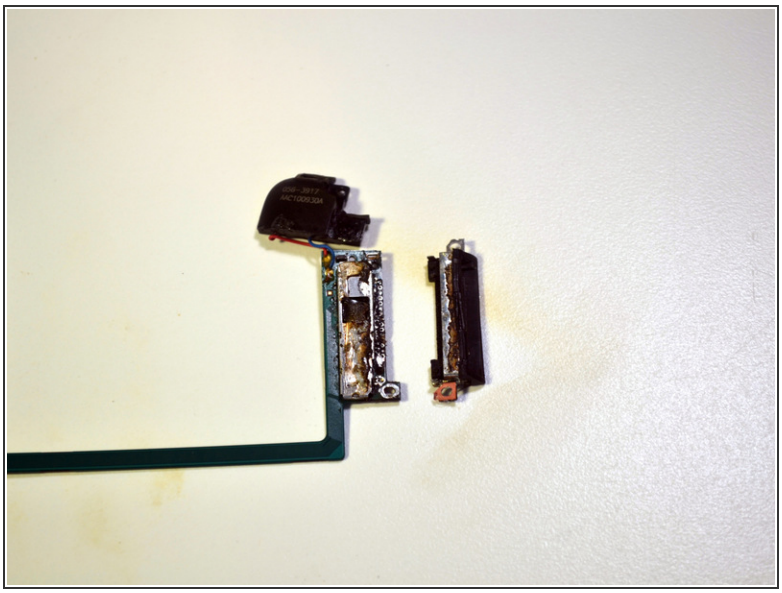
- Desolder the two solder joints and the 30 pins.
  - To desolder the solder joint, place a copper desoldering braid on top of the existing solder and press down on the braid with the soldering iron.
  - Once the solder melts and flows into the braid, remove the braid from the pad.

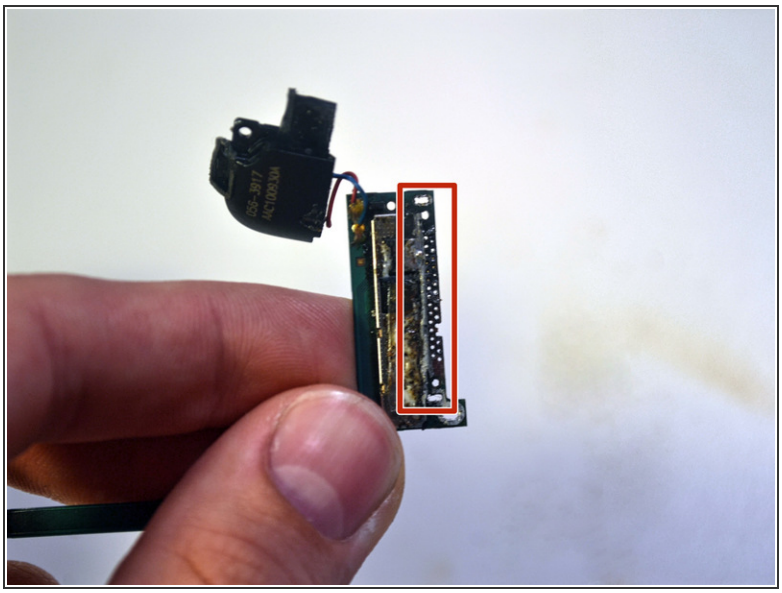
Process may need to be repeated two or three times to ensure complete removal of all solder.

DO NOT get solder on the highlighted gold ring, as you will not be able to remove it.

- Repeat this same process for the other solder joint and all 30 pins.

Step 19



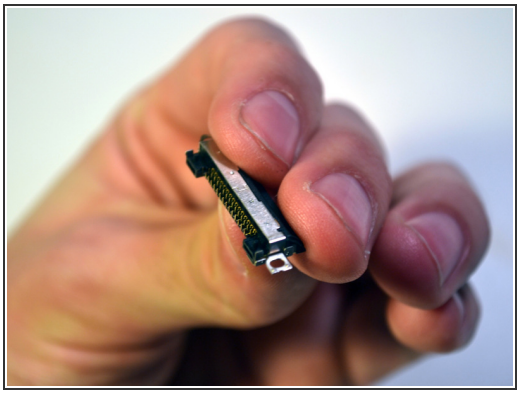


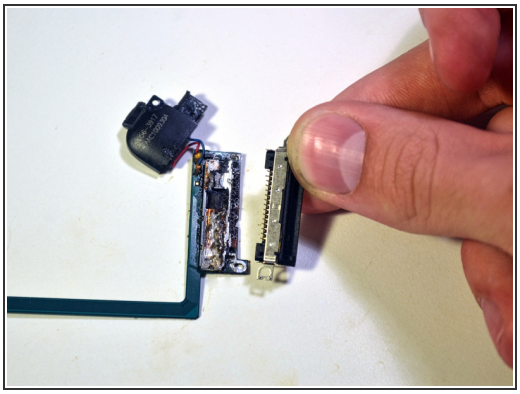
- Once all solder is removed, pry the dock connector straight down from the logic board using a metal spudger.

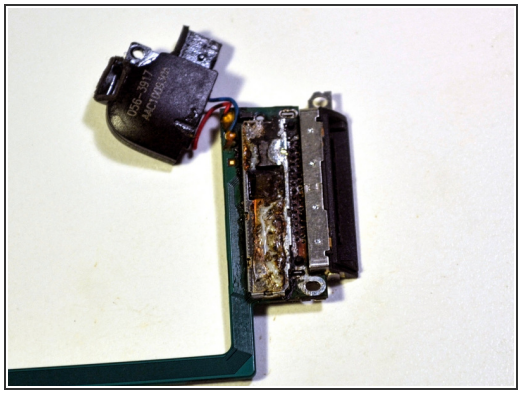
  ⚠ DO NOT remove the dock connector before all solder is removed, as the pins will rip from the dock connector and get stuck in the logic board.

- If done properly, you should be able to see straight through the logic board where all 30 pins and the two metal joints used to be.

Step 20



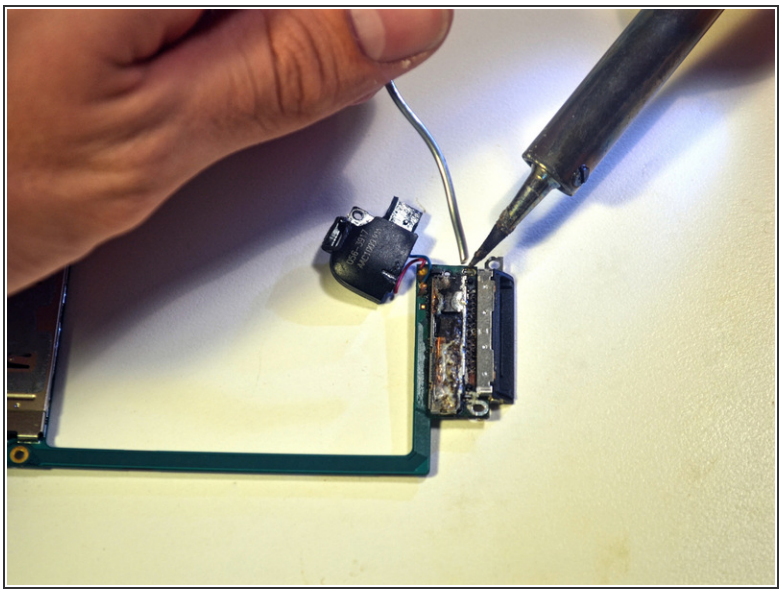


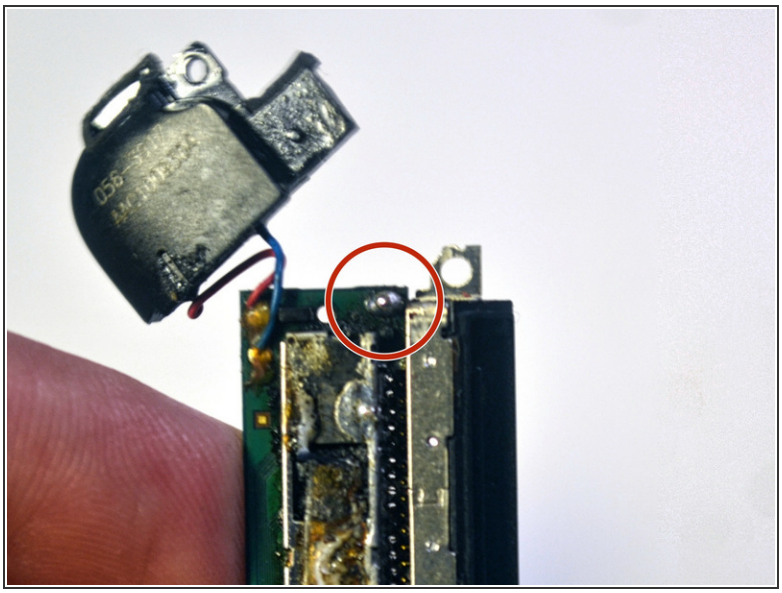


- With the logic board facing down, push the pins of the new connector through the holes in the logic board, making sure each pin goes through the board.

  ⚠ DO NOT use excessive force, as you can bend the pins.

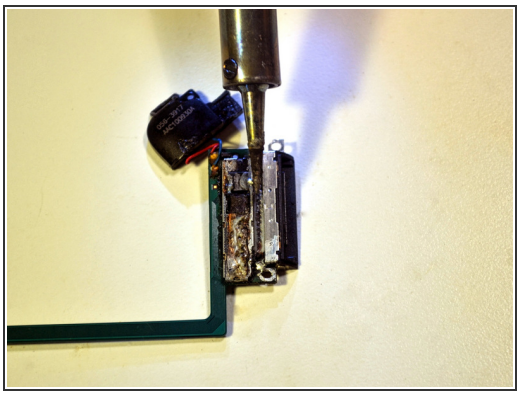
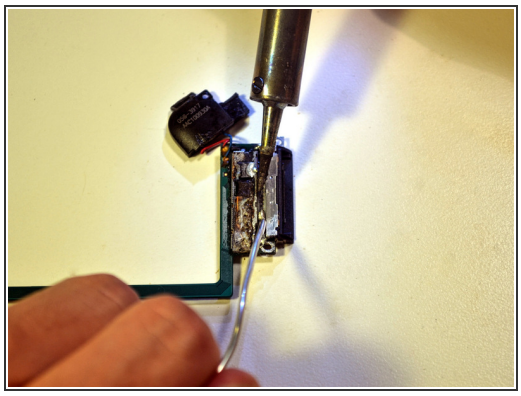
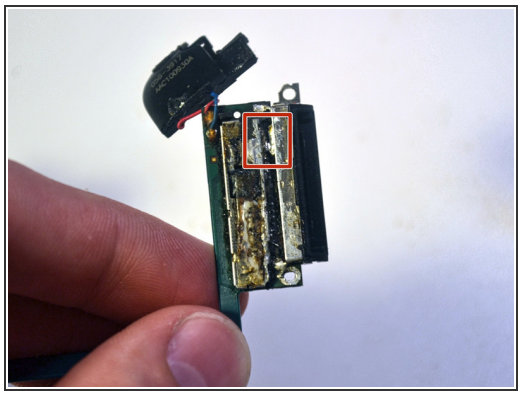
Step 21





- Solder the two metal joints back to the logic board.
  - Place the tip of the soldering iron against the metal joint.
  - Melt solder so that it forms a dome on top of the joint.
  - Remove both the solder and the soldering iron tip from the solder pad as soon as enough solder melts onto the pad.
  - When complete, the soldered pads should have an ovular, pill like shape.

Step 22

- Solder all 30 pins back to the logic board.
  - Heat all 30 pins with the tip of the soldering iron.
  - Melt a drop of solder onto the pins and spread it around with the tip of the soldering iron.
  - Repeat until all pins are covered in solder.

Make sure solder covers every pin and pushes through to the other side of the logic board.

DO NOT push too hard on the pins with the tip of the soldering iron as you could bend the pins.

- Remove any excess solder with desoldering braid.

To reassemble your device, follow these instructions in reverse order.

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